

in which


^{54B}
^{cl}
R⁴ is a halogen atom or a pseudohalogen,

R¹⁰ is a hydrogen atom or a straight-chain or branched C₁-C₄ alkyl group,

R²⁰ and R^{20a} are, independently of one another, a hydrogen atom, a straight-chain or branched C₁₋₄ alkyl or hydroxy-C₁₋₄ alkyl group, or

one of radicals R²⁰ and R^{20a} is a hydrogen atom, a straight-chain or branched C₁₋₄ alkyl or hydroxy-C₁₋₄ alkyl group, and the other radical is a halogen atom or a pseudohalogen.

2. (Amended) A17-Methylene steroid according to claim 1, wherein R⁴ is a chlorine or bromine atom or a cyano group.


3. (Twice Amended) A17-Methylene steroid according to claim 1, wherein one of radicals R²⁰ and R^{20a} is a hydrogen atom or a methyl group, and the other radical is a fluorine, chlorine or bromine atom, an azido, cyano or rhodano group or hydroxymethyl.

4. (Twice Amended) A17-Methylene steroid according to claim 1, wherein R¹⁰ is a hydrogen atom or a methyl group.

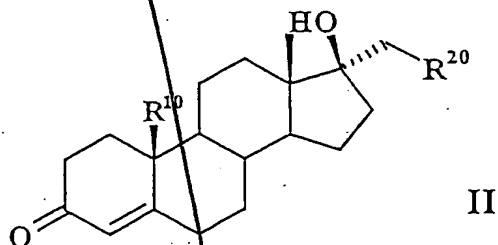
5. (Amended) A17-Methylene steroid according to claim 1, selected from the group consisting of

- 1) E-17-Chloromethylene-4-chloro-estr-4-en-3-one,
- 2) E-17-Cyanomethylene-4-chloro-estr-4-en-3-one,
- 3) Z-17-Cyanomethylene-4-chloro-estr-4-en-3-one,
- 4) Z-17-(1')-Cyanoethylidene-4-chloro-estr-4-en-3-one,

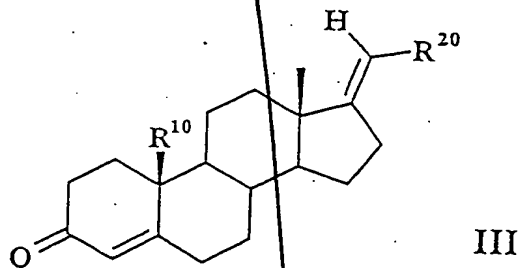
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- 5) Z-17-Ethylidene-4-chloro-estr-4-en-3-one,
- 6) E-17-Ethylidene-4-chloro-estr-4-en-3-one,
- 7) E-17-Bromomethylene-4-chloro-estr-4-en-3-one,
- 8) Z-17-Chloroethylidene-4-chloro-estr-4-en-3-one,
- 9) Z-17-Bromoethylidene-4-chloro-estr-4-en-3-one,
- 10) E-17-Chloromethylene-4-cyano-androst-4-en-3-one,
- 11) E-17-Chloromethylene-4-chloro-androst-4-en-3-one,
- 12) E-17-(2')-Hydroxyethylidene-4-chloro-estr-4-en-3-one, and
- 13) Z-17-(2')-Hydroxyethylidene-4-chloro-estr-4-en-3-one.

6. (Amended) A process for preparing a 17-methylene steroid according to claim 1, wherein R^{20a} is a hydrogen atom, comprising reacting a compound of formula II,

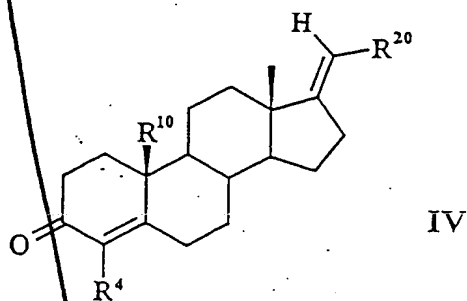


in an aprotic solvent with an acid chloride to form a 17-methylene steroid of formula III,



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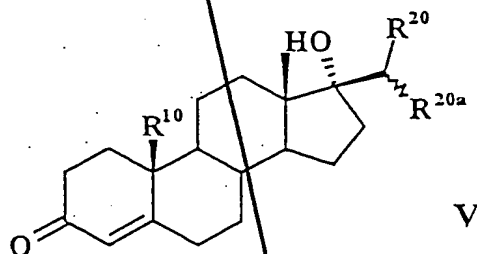
the 4,5-epoxide is generated with $\text{H}_2\text{O}_2/\text{NaOH}$, the 4,5-epoxide is then opened with a nucleophilic reagent, which is derived from a halogen atom or pseudohalogen, in a dipolar aprotic solvent to a halogen- or pseudohalogen hydrin, and optionally reacted with mineral acid, carboxylic acid or sulfonic acid in a protic or aprotic solvent with dehydration to a compound of formula IV,



wherein R^4 is a halogen atom or pseudohalogen, R^{10} is a hydrogen atom or a straight-chain or branched $\text{C}_1\text{-C}_4$ alkyl group,

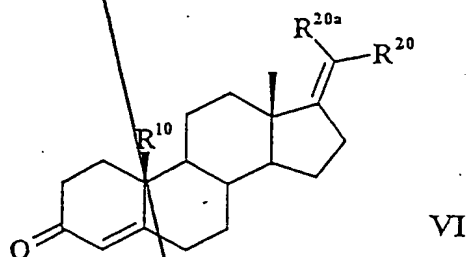
and R^{20} is a C_{1-4} alkyl or hydroxy- C_{1-4} alkyl group, a halogen atom or a pseudohalogen.

7. (Amended) A process for preparing a 17-methylene steroid according to claim 1, comprising reacting a compound of formula V,



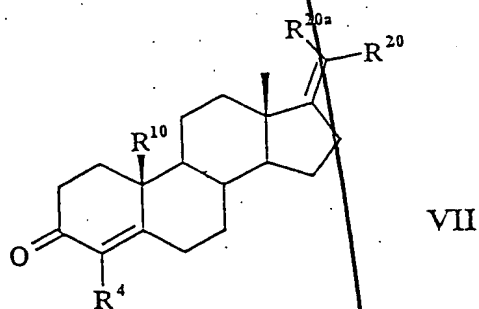
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with an acid chloride in an aprotic solvent to form a methylene steroid of formula VI,



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the 4,5-epoxide is generated with $\text{H}_2\text{O}_2/\text{NaOH}$, the 4,5-epoxide is then opened with a nucleophilic reagent, which is derived from a halogen atom or pseudohalogen, in a dipolar aprotic solvent to a halogen- or pseudohalogen hydrin, and optionally reacted with mineral acid, carboxylic acid or sulfonic acid in a protic or aprotic solvent with dehydration to a compound of formula VII,



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C17~~ in which R⁴ is a halogen atom or pseudohalogen, R¹⁰ is a hydrogen atom or a straight-chain or branched C₁-C₄ alkyl group,

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Cont~~ and R²⁰ is a C₁₋₄ alkyl or hydroxy-C₁₋₄ alkyl group, and R^{20a} is a hydrogen atom, a halogen atom or a pseudohalogen.

8. (Twice Amended) A pharmaceutical composition comprising at least one 17-methylene steroid according to claim 1 and a pharmaceutically compatible adjuvant or vehicle.

Please cancel claim 9 without prejudice or disclaimer.

~~B2~~ 10. (Twice Amended) A method of treating a prostate diseases, alopecia of the male type, acne or hirsutism, comprising administering to a patient in need thereof an effective amount of a compound according to claim 1.

Please enter the following new claims

~~B3~~ 11. A method of effecting contraception in a man or in a woman comprising administering to a patient in need thereof an effective amount of a compound according to claim

1.

12. A method inhibiting 5 α -reductase comprising administering to a patient in need thereof an effective amount of a compound according to claim 1.